

CLAIMS

- Sub. A2*
1. A method for the extraction of hydrophobic constituents, such as benzene, toluene, xylene and/or chlorinated hydrocarbons, from an aqueous solution, involving the steps of:
    - a. contacting said solution with a porous, preferably dimensionally stable granular or powdery material, of which the pores have a size of from 0.1 to 50  $\mu\text{m}$  and contain a hydrophobic substance with affinity for the hydrophobic constituents to be extracted, which granular or powdery material has a particle size of from 0.1 to 10 mm, and is wetted more readily by the hydrophobic substance immobilized in the pores than by the aqueous solution to be treated, and
    - b. regenerating the product of step a), essentially without the granular or powdery material being freed from the hydrophobic substance, by removal of the hydrophobic constituents.
  2. A method according to claim 14, wherein steam is used in step b) to remove the hydrophobic constituents.
  3. A method according to claim 1, wherein steps a) and b) are repeated.
  4. A method according to claim 1, wherein the pore size of the porous, preferably dimensionally stable granular or powdery material is from 0.2 to 15  $\mu\text{m}$ .
- Sub. A3*

5. A method according to claim 1, wherein the immobilized hydrophobic substance is a polymer which swells in the hydrophobic constituents to be extracted.

6. A method according to claim 1, wherein the immobilized substance is polystyrene.

7. A method according to claim 1, wherein the immobilized substance is a liquid.

8. A method according to claim 1, wherein the immobilized substance is a glycerol ester of one or more optionally unsaturated fatty acids:

*Ref. 53* 9. A method according to claim 1, wherein the immobilized glycerol ester is soybean oil and/or castor oil.

10. A method according to claim 1, wherein the porous material is a polyolefin.

11. A method according to claim 1, wherein the porous material is polypropylene.

*Ref. A4* 12. A method according to claim 1, wherein the porous material was obtained by dissolving a polymer in a solvent with heating, cooling the solution, and reducing the solidified mass mechanically if so desired.

13. A method according to claim 1, wherein the polymer is polypropylene and the solvent is soybean oil and/or castor oil.